

DISCUSSION OF THE AMENDMENT

Claim 1 has been amended by inserting that each of components c) through g) is optional, as supported by the equivalent term “if appropriate” recited in original Claim 1, and the specification at page 5, lines 16, 19, 23, 27, and 30, respectively. Claim 1 has been further amended by deleting members from the component ac) Markush group. Claim 5 has been canceled. Claims 7 and 8 have each been amended to recite that the recited components are present. Claim 9 has been amended, consistent with the above-discussed amendment to Claim 1, and by deleting the redundant “the steps”. Claim 11 has been amended from passive to active form. Claim 12 has been amended, consistent with the above-discussed amendment to Claim 1. Claim 13 has been amended by deleting the redundant “the step of”. Finally, the term “essentially” has been deleted from all Markush group recitations.

New Claim 14 has been added, as supported in the specification at page 19, lines 16-24.

No new matter is believed to have been added by the above amendment. Claims 1-4 and 6-14 are now pending in the application.

REMARKS

The rejection of Claims 1-8 and 9-10 under 35 U.S.C. § 102(b) as anticipated by US 6,573,228 (Littig et al), is respectfully traversed.

The presently-claimed invention is drawn to compositions for treating hard surfaces comprising, *inter alia*, at least one water-soluble or water-dispersible compound, referred to as component A (Claims 1-8); a process for preparation of such compounds (Claim 9); and such compound prepared by such process (Claim 10). As recited in above-amended Claim 1, component A is prepared by reacting aa) polyalkylenepolyamines, polyamidoamines grafted with ethyleneimine, polyether-amines and mixtures of said compounds, as component Aa, ab) bifunctional crosslinkers having, as a functional group, a halogenhydrin, glycidyl, aziridine or isocyanate unit or a halogen atom, as component Ab, and ac) monoethylenically unsaturated carboxylic acids selected from the group consisting of acrylic acid, methacrylic acid, ethylacrylic acid, salts, esters, amides or nitriles of monoethylenically unsaturated carboxylic acids, and mixtures thereof.

Littig et al discloses laundry detergent compositions comprising so-called fabric enhancement polyamines which comprise one or more modified polyamine compounds selected from:

- i)  $(PA)_w(T)_x$ ;
- ii)  $(PA)_w(L)_z$ ;
- iii)  $[(PA)_w(T)_x]_y[L]_z$ ; and
- iv) mixtures thereof (column 1, line 61 to column 2, line 1).

PA is a grafted or non-grafted, modified or unmodified polyamine backbone unit, T is an amide-forming polycarboxylic acid cross-linking unit, and L is a non-amide-forming cross-linking unit (column 2, lines 1-5). Suitable polyamine backbones (PA units) are, for example, polyalkyleneimines or polyalkyleneamines (column 3, lines 30-38). The polyamine

backbone may be modified by grafting or capping (column 5, lines 13-16). The grafting is carried out for example with aziridine (ethyleneimine), caprolactam or mixtures thereof, as grafting agents (column 5, lines 35-37) and the grafting can be carried out prior to or after cross-linking with one or more T-units, whereby the grafting is preferably accomplished after cross-linking with the T-unit (column 5, lines 51-54). The capping is carried out by reaction of the PA-unit with a monocarboxylic acid. Suitable monocarboxylic acids disclosed are C<sub>1</sub>-C<sub>22</sub> linear or branched alkyl, preferably C<sub>10</sub>-C<sub>18</sub> linear alkyl carboxylic acids like lauric acid and myristic acid (column 5, lines 60-65), which are the only acids explicitly listed. The cross-linking units T are amide-forming cross-linking units, for example, dibasic acids such as succinic acid, maleic acid, adipic acid, glutaric acid, suberic acid, sebacic acid and terephthalic acid (column 6, lines 28-31). Non-amide-forming cross-linking units L are, for example, epihalohydrins (column 6, lines 54-56).

Littig et al discloses **no** mono-ethylenically unsaturated carboxylic acids selected from acrylic acid, methacrylic acid and ethylacrylic acid (which are not used as cross-linking units according to the present invention), as cross-linking units or as capping units. Indeed, the monocarboxylic acids listed as capping units in Littig et al are not monoethylenically unsaturated short-chain acids but rather, saturated long-chain acids. Thus, in Littig et al, the reaction of a polyamine backbone with a saturated monocarboxylic acid as a capping unit results in an amide having a long-chain alkyl unit. In the presently-claimed invention of Claim 1, on the other hand, the reaction of the polyalkylene polyamine with the monoethylenically unsaturated carboxylic acid produces a Michael-product obtained by a Michael-reaction, because of the  $\alpha,\beta$ -ethylenically unsaturation of the carboxylic acid employed.

Thus, Littig et al neither anticipates nor otherwise renders the above-amended claims unpatentable. Accordingly, it is respectfully requested that the rejection be withdrawn.

The rejection of Claim 12 under 35 U.S.C. § 102(b) as anticipated by US 2003/0195135 (Boeckh et al), is respectfully traversed. Claim 12 is drawn to a process for treating hard surfaces by, in effect, above-discussed component A. Boeckh et al discloses particular cationically modified, particulate, hydrophobic polymers, the surfaces of which have been cationically modified by coating with cationic polymers, and the particle size of which is 10 nm to 100  $\mu$ m, as additives to rinse, cleaning and impregnation compositions for hard surfaces (Abstract). The compounds of present Claim 12, on the other hand, are recited as water-soluble or water-dispersible and for this reason alone, are different from the hydrophobic polymers of Boeckh et al. Boeckh et al's hydrophobic polymers are obtainable, for example, by polymerization of, in effect, monoethylenically unsaturated monomers [0015ff], which are cationically modified by cationic polymers containing, for example, vinyl amine units, including polyethylene imines and crosslinked polyethylene imines, *inter alia* [0047]. Thus, it is clear that the polymeric backbone of Boeckh et al's hydrophobic polymers is a hydrophobic acrylate-type polymer. On the other hand, in present Claim 12, the resulting water-soluble or water-dispersible compounds have a backbone of polyalkylene polyamine, polyamidoamine, polyamidoamine grafted with ethylene amine, polyether amine, or mixtures thereof, recited as component Aa. Thus, the water-soluble or water-dispersible compounds are polyalkylene polyamines or similar polymers. Nor are these compounds cationically modified as required by Boeckh et al. While the compounds recited in Claim 12 are recited in product-by-process form, it is clear that the resulting compounds could not possibly be the hydrophobic polymers of Boeckh et al. Accordingly, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 11 and 13 under 35 U.S.C. § 103(a) as unpatentable over Littig et al and further in view of Boeckh et al, is respectfully traversed. Claims 11 and 13 are drawn to processes for treating hard surfaces with the above-discussed composition. The

Application No. 10/587,269  
Reply to Office Action of November 1, 2007

disclosures and deficiencies of both Littig et al and Boeckh et al have been discussed above. Neither remedies the deficiencies of the other. Moreover, since Littig et al is drawn to laundry compositions and Boeckh et al is drawn to hard surface compositions, it is not clear why one of ordinary skill in the art would even combine them. Nevertheless, the fabric enhancement polyamines of Littig et al and the cationic modified, particulate, hydrophobic polymers of Boeckh et al are sufficiently different from each other that one does not suggest the other. Moreover, even if the fabric enhancement polyamines of Littig et al were used to treat hard surfaces, the result would still not be the presently-claimed invention. Accordingly, it is respectfully requested that this rejection be withdrawn.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Customer Number  
**22850**

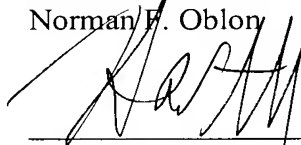
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